Author

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Title

Steering techniques library for virtual agents

Abstract

The steering techniques of Craig W. Reynolds are an approach to navigation of autonomous agents in a virtual environment. Each steering has a single goal (e.g., to avoid obstacles, follow another agent, etc.). Combinations of these steerings provide rich possibilities of navigation. The goal of this thesis was to adjust steerings for navigation of human virtual agents and explore how appropriate are they for this purpose. In addition to adjusting the original steerings of C. W. Reynolds, new steerings were designed, as well as an algorithm of steering combination. The modified and newly designed steerings were implemented on the Pogamut platform in the 3D virtual environment UnrealEngine2Runtime. The created steering library may be used by other parts of Pogamut too. Also, an aplication was created with the purpose of running virtual agents in the virtual environment and setting parameters of their steerings.